UNDERSTANDING YOUR SKIN

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Want The Skinny On Creatine?

(NAPSI)-It seems **creatine** is the word on everyone's lips these days. In fact, run a Google search and you'll find over three million entries. And with good reason: the popular supplement used by body builders and athletes to help boost **energy** and build muscle mass is now being touted for its anti-aging benefits.

But what do skincare and bodybuilding have in common? **Creatine**, of course, which is found naturally in the body and provides **energy** to cells. Trace amounts are produced in the liver and stored in skeletal muscles where it acts as an **energy reserve**-this natural refueling process helps the body in all its functions.

Bodybuilders and athletes are onto this because they need support with **energy** production wherever they can get it. And numerous studies show that **creatine** supplementation improves athletic performance, promotes lean muscle mass, enhances strength and boosts **energy**. So supplementing with **creatine** means greater **energy reserves**. This is the basic principal that is being applied to skincare.

But how does it work? Over time the **creatine** in skin cells depletes. This, together with natural aging, leaves skin vulnerable to dryness, wrinkles, uneven skin tone and enlarged pores. The good news is, if applied topically, **creatine** is effectively and efficiently absorbed into the skin. So it's no surprise that major skincare companies, including Nivea Visage, are jumping on the **creatine** bandwagon. Their Multiple Results All in One Anti-Aging Treatment provides skin with a healthy dose of its own **creatine** complex to help boost its natural anti-aging power. Fine lines and wrinkles are visually reduced, skin is firmer and smoother, pores are refined and skin tone is more even.

Fortunately, unlike **creatine** monohydrate (the main form of **creatine** used in bodybuilding supplements), which can take up to three months to show results, the **creatine** complex used in skincare will start showing results in just two weeks. The skin also appears to have an unlimited ability to absorb **creatine** so daily application is beneficial. The experts at Nivea recommend using their Multiple Results

product on face and neck both morning and night. Right after the treadmill, perhaps?

For more information visit www.niveausa.com.

Creatine, best known for its ability to build muscle mass, can also help improve skin tone.

1: Plast Reconstr Surg. 1998 May;101(6):1597-603.

Critical role of phosphagens in the energy cascade of cutaneous ischemia and protective action of phosphocreatine analogues in skin flap survival.

Cuono CB, Marquetand R, Klein MB, Armitage I.

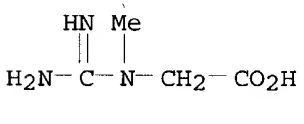
Yale Skin Bank, Department of Surgery, Yale University School of Medicin New Haven, Conn, USA.

A general understanding of the pivotal role of phosphocreatine (PCr) as the principal determinant of skin flap survival is now emerging. Definitive metabolic investigations using phosphorus (31P) and proton (1H) magnetic resonance spectroscopy (MRS) have established that the inability to replenisl metabolically exhausted PCr reserves predictably correlates with skin flap necrosis. Furthermore, postoperative parenteral administration of PCr has be shown to augment effectively skin flap survival. We hypothesized that creati kinase, the enzyme controlling the utilization of the high-energy phosphate component of PCr, is a critical determinant of the tolerance of a skin flap to ischemic insult. In other words, if the rate of utilization of PCr is too rapid, P stores will rapidly deplete, and the flap will not be able to withstand a period ischemia. Alternatively, if the rate of dephosphorylation of PCr is reduced, survival of skin flaps during periods of ischemia could be extended. To test t hypothesis, we investigated the metabolic distribution and fate of cyclocreati (cCr), a competent creatine analogue with a lower affinity for the creatine kinase enzyme. When administered as 1.5 percent (w/w) of the normal diet o laboratory rats, cCr accumulates in skin as the competent phosphagen, phosphocyclocreatine (PcCr). Cutaneous flaps elevated in these animals, and studied by 31P and 1H MRS, demonstrate that once depletion of PCr has occurred, PcCr continues to sustain ATP levels. This results in significant enhancement of skin flap survival ($p < 0.005$). These observations confirm th importance of the creatine kinase enzyme in cutaneous flap ischemia and suggest new approaches to augment skin flap survival.

PMID: 9583491 [PubMed - indexed for MEDLINE]

Dec 13 2004 14:18:14

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
RN 57-00-1 REGISTRY
CN Glycine, N-(aminoiminomethyl)-N-methyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **Creatine (8CI)**
OTHER NAMES:
CN Cosmocair C 100
CN Methylguanidoacetic acid
CN N-Methyl-N-guanylglycine
CN NSC 8752
CN Phosphagen
FS 3D CONCORD
MF C4 H9 N3 O2
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DETHERM*, DIOGENES, DRUGU, EMBASE, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PROMT, SPECINFO, TOXCENTER, TULSA, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5772 REFERENCES IN FILE CA (1907 TO DATE)
111 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
5777 REFERENCES IN FILE CAPLUS (1907 TO DATE)
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s creatinine/cn
L2 1 CREATININE/CN

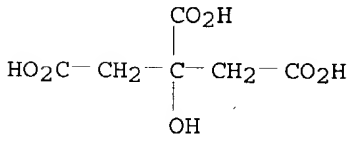
=> d

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
RN 177024-62-3 REGISTRY
CN Glycine, N-(aminoiminomethyl)-N-methyl-, 2-hydroxy-1,2,3-propanetricarboxylate (9CI) (CA INDEX NAME)
OTHER NAMES:
CN **creatine citrate**
MF C6 H8 O7 . x C4 H9 N3 O2
SR CA
LC STN Files: CA, CAPLUS, CHEMCATS, TOXCENTER, USPAT2, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)

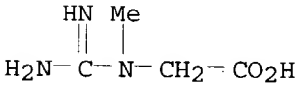
CM 1

CRN 77-92-9
CMF C6 H8 O7



CM 2

CRN 57-00-1
CMF C4 H9 N3 O2



14 REFERENCES IN FILE CA (1907 TO DATE)
14 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
RN 6020-87-7 REGISTRY
CN Glycine, N-(aminoiminomethyl)-N-methyl-, monohydrate (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **Creatine, monohydrate (8CI)**
OTHER NAMES:
CN Creapure
MF C4 H9 N3 O2 . H2 O
LC STN Files: ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, DETHERM*, HODOC*, IPA, PROMT, RTECS*, SPECINFO, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
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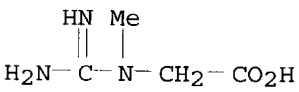

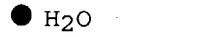

192 REFERENCES IN FILE CA (1907 TO DATE)
193 REFERENCES IN FILE CAPLUS (1907 TO DATE)

RN 60-27-5 REGISTRY
CN 4H-Imidazol-4-one, 2-amino-1,5-dihydro-1-methyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **Creatinine (8CI)**
OTHER NAMES:
CN 1-Methylglycocyamidine
CN 1-Methylhydantoin-2-imide
CN 2-Amino-1-methyl-1,5-dihydroimidazol-4-one
CN 2-Amino-1-methylimidazolin-4-one
CN NSC 13123
FS 3D CONCORD
DR 15231-31-9, 82016-55-5, 45514-66-7
MF C4 H7 N3 O
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DRUGU, EMBASE, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PIRA, PROMT, SPECINFO, TOXCENTER, ULIDAT, USPAT2, USPATFULL
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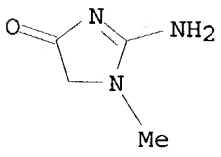
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

13319 REFERENCES IN FILE CA (1907 TO DATE)
53 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
13349 REFERENCES IN FILE CAPLUS (1907 TO DATE)
6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:631847 CAPLUS
DOCUMENT NUMBER: 133:227587
TITLE: Skin-care compositions containing creatinine and/or creatine
INVENTOR(S): Sanbe, Akiko
PATENT ASSIGNEE(S): Lion Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
JP 2000247866	A2	20000912	JP 1999-277131		19990929
PRIORITY APPLN. INFO.:			JP 1998-373527	A	19981228

L42 ANSWER 41 OF 45 USPATFULL on STN

SUMM . . . of tissue function in diseases of the joints (e.g., rheumatoid and osteo-arthritis) and of many organs, including the kidney, pancreas, **skin**, lung and heart. For example, glomular nephritis, diabetes, inflammatory bowel disease, vascular diseases such as atheroclerosis and vasculitis, and **skin** diseases such as psoriasis and dermatitis are believed to result in large part from unwanted acute inflammatory reaction and fibrosis.. . .

SUMM It is well known that **damage** occurs to **cells** in mammals which have been deprived of oxygen. In fact, the interruption of blood flow, whether partial (hypoxia) or complete (ischemia) and the ensuing inflammatory responses may be the most important cause of coagulative necrosis or **cell death** in human disease. The complications of atherosclerosis, for example, are generally the result of ischemic cell injury in the brain,. . . of the kidney, cardiac myocytes, and the neurons of the central nervous system, all depend on aerobic respiration to produce **ATP**, the energy necessary to carry out their specialized functions. When ischemia limits the oxygen supply and **ATP** is depleted, the affected cells may become irreversibly injured. The ensuing inflammatory responses to this initial injury provide additional insult. . .

SUMM Psoriasis is a chronic, recurrent, scaling **skin** disease of unknown etiology characterized by chronic inflammation of the **skin**. Erythematous eruptions, often in papules or plaques, and usually having a white silvery scale, can affect any part of the **skin**, but most commonly affect the scalp, elbows, knees and lower back. The disease usually occurs in adults, but children may. . .

SUMM . . . used to particular advantage in lung, heart, kidney, liver and pancreas transplants, as well as in transplantation and/or grafting of **skin**, gastrointestinal mucosa, bone marrow and other living tissues.

DRWD . . . the cardioprotective effects of morphogen (hOP1) in a rat myocardial ischemia-reperfusion model, as evidenced by the smaller loss of myocardial **creatine kinase** in hOP1-treated rats;

DRWD Formulations for topical administration to the **skin** surface may be prepared by dispersing the morphogen or morphogen-stimulating agent with a dermatologically acceptable carrier such as a lotion, cream, ointment or soap. Particularly useful are carriers capable of forming a film or layer over the **skin** to localize application and inhibit removal. For topical administration to internal tissue surfaces, the morphogen may be dispersed in a. . .

DETD Twenty-four hours later, the hearts were removed from all of the rats and the levels of **creatine kinase** (CK) from the left ventricle (the infarcted region) and from the interventricular septum (the control nonischemic region) were determined by. . .

ACCESSION NUMBER: 2000:77339 USPATFULL

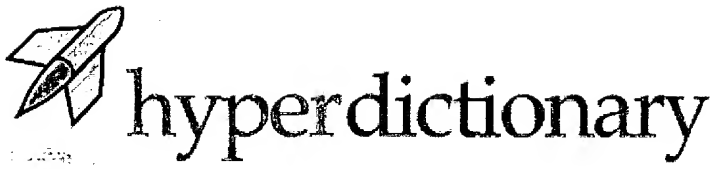
TITLE: Method for reducing tissue damage associated with ischemia-reperfusion or hypoxia injury

INVENTOR(S): Kuberasampath, Thangavel, Medway, MA, United States
Pang, Roy H. L., Etna, NH, United States
Oppermann, Hermann, Medway, MA, United States
Rueger, David C., Hopkinton, MA, United States
Cohen, Charles M., Medway, MA, United States
Smart, John E., Weston, MA, United States

PATENT ASSIGNEE(S): Creative BioMolecules, Inc., Boston, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6077823		20000620	
APPLICATION INFO.:	US 1995-445467		19950522	(8)

RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-165511, filed on 9 Dec 1993, now abandoned which is a continuation of Ser. No. US 1992-938336, filed on 28 Aug 1992, now abandoned which is a continuation-in-part of Ser. No. US 1991-753059, filed on 30 Aug 1991, now abandoned And Ser. No. US 1991-752764, filed on 30 Aug 1991, now abandoned which is a continuation-in-part of Ser. No. US 1991-667274, filed on 30 Aug 1991, now abandoned
DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Kemmerer, Elizabeth C.
LEGAL REPRESENTATIVE:	Elrifi, Ivor R., Morency, MichelMintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
NUMBER OF CLAIMS:	12
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 6 Drawing Page(s)
LINE COUNT:	3794



Meaning of MELASMA

WordNet Dictionary

Definition: [n] a tan discoloration of a woman's face that is associated with pregnancy or with the use of o contraceptives

Websites:

Synonyms: chloasma, mask of pregnancy

See Also: symptom

Webster's 1913 Dictionary

Definition: \Me*las"ma\, n. [NL., fr. Gr. ? black spot.] (Med.)
A dark discoloration of the skin, usually local; as,
Addison's melasma, or Addison's disease. -- {Me*las"mic}, a.